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Name of Office.	When esta- blished.	Date of Valuation.	Years in ope- ration.	Sum assured, 'including Bonus Additions.	Estimated Liability.	Per- cent- age.
Cb	1848	21 1-1- 1000	12	0.000 501	164 454	5:6
Gresham		31 July, 1860	14	2,962,591	164,454	
Royal	$1845 \\ 1844$	31 Dec., 1859	15	1,982,504	159,409	8.0
Equity and Law		31 Dec., 1859	15	1,430,342	160,498	11.2
London and Provincial Law		31 Dec., 1860		1,183,857	114,793	9.7
Star		31 Dec., 1858	15	2,056,545	208,899	10.2
Victoria	1838	31 Dec., 1858	20	1,494,964	225,298	15.1
Reliance	1840	31 Dec., 1862	22	1,064,666	107,933	10.1
Scottish Provident	1837	31 Dec., 1859	22	3,453,459	496,588	14.4
Albert		31 Dec., 1861	23	7,249,924	446,992	6.2
Legal and General		31 Dec., 1861	25	3,720,274	894,493	24.0
Minerva		31 Dec., 1861	25	1,987,312	349,973	17.6
Metropolitan		4 Apr., 1863	28	3,375,224	315,979	9.4
Mutual	1834	31 Dec., 1862	28	1,695,875	230,814	13.6
Universal	1834	31 Dec., 1862	28	2,263,639	489,730	21.6
Scottish Equitable	1831	1 Mar., 1862	31	5,718,006	1,196,801	20.9
Scottish Amicable	1826	31 Dec., 1860	34	3,815,461	555,884	14.6
Crown	1825	25 Mar., 1860	35	2,692,531	628,617	23.4
Economic	1823	31 Dec., 1858	35	6,608,406	*1,517,998	23.0
Clerical	1824	30 June, 1861	37	4,537,914	1,100,984	24.3
Guardian	1821	31 Dec., 1859	38	4,586,123	1,519,372	33.1
Scottish Widows' Fund	1815	31 Dec., 1859	44	9,958,166	2,439,672	24.5
London Life	1808	30 June, 1862	54	6,526,853	775,002	11.9
Eagle	1807	30 June, 1862	55	+8,356,222	1,604,052	19.2
Rock	1806	20 Aug., 1861	55	4,458,479	1,483,692	33.3
Equitable	1762	31 Dec., 1859	97	8,355,791		‡49·0
2344200020	02	01 200, 1000			-,,	+ 15 0

INSTITUTE OF ACTUARIES.

PROCEEDINGS OF THE INSTITUTE.

Second Ordinary Meeting, Session 1862-63.—Monday, 29th December, 1862. The President in the Chair.

The minutes of the first ordinary meeting were read and confirmed. The Secretary announced various donations to the library.

The following gentlemen, duly nominated at the last ordinary meeting, were elected members of the Institute:-

J. H. Evens.	Associates. W. T. Hancock.
A's:	sociates.
F. Addiscott.	LieutCol. Oakes.
B. C. Wates.	C. H. Ogbourne.
W. Hughes.	H. Parminter.
T. H. Johnson.	A. Smither.
A. E. Middleton.	E. Waterhouse, B.

A. E. Middleton. | E. Waterhouse, B.A.

Mr. Samuel Brown read a paper "On the rates of mortality and marriage amongst Europeans in India."

Thanks were voted to Mr. Brown, and the meeting adjourned to Monday, 26th January, 1863.

- * Including claims admitted but not paid, the amount of which is not stated.
- + Less £1,283,000 reassured.—Ed. A. M.

 ‡ In this case the bonus additions amount to no less than £2,092,941, the reserve in respect of them being 81.6 per cent.—Ed. A. M.

Third Ordinary Meeting, Session 1862-63.—Monday, 26th January, 1863. The President in the Chair.

The minutes of the second ordinary meeting were read and confirmed.

The Secretary announced various donations to the library.

The following gentlemen, duly nominated at the last ordinary meeting, were elected members of the Institute:—

	Associates.
R. R. F. Davey.	J. S. Parker.
F. C. Duttson.	G. W. H. Secretan.
E. W. Norfolk.	A. E. Wenham.
W. J. Norton.	A. R. Wormald.

Mr. Hill Williams, Honorary Secretary, read a paper by Mr. James Meikle, "On the calculation of survivorship annuities by the columnar method."

Thanks were voted to Mr. Meikle and Mr. Williams, and the meeting adjourned to Monday, 23rd February, 1863.

Fourth Ordinary Meeting, Session 1862-63.—Monday, 23rd February, 1863. The President in the Chair.

The minutes of the third ordinary meeting were read and confirmed.

The Secretary announced various donations to the library.

The following gentlemen, duly nominated at the last ordinary meeting, were elected members of the Institute :-

	Fellows.	
Col. J. T. Smith.	1	W. P. Clirehugh.
	Associates.	
James Curror.	1	Wm. White.

Mr. W. S. B. Woolhouse, read a paper "On interpolation, summation, and the adjustment of numerical tables." (Part I.)

Thanks were voted to Mr. Woolhouse, and the meeting adjourned to Monday, 30th March, 1863.

Fifth Ordinary Meeting, Session 1862-63.—Monday, 30th March, 1863. The President in the Chair.

The minutes of the 4th ordinary meeting were read and confirmed.

The Secretary announced various donations to the library.

Mr. Samuel Brown read a paper by Mr. Jardine Henry "On the relation of the Carlisle table to the Government, the Registrar-General's, and other tables of mortality."

Thanks were voted to Mr. Henry and Mr. Brown, and the meeting adjourned to Monday, 27th April, 1863.

Sixth Ordinary Meeting, Session 1862-63.—Monday, 27th April, 1863. The President in the Chair.

The minutes of the fifth ordinary meeting were read and confirmed.

The Secretary announced various donations to the library.

Mr. B. W. Gabriel, duly nominated at the last ordinary meeting, was elected an Associate of the Institute.

Mr. Sprague read a paper "On some of the methods proposed for the luation of the liabilities of Life Assurance Companies."

Thanks were voted to Mr. Sprague, and the meeting adjourned to Monday, 30th November, 1863.

Sixteenth Annual General Meeting, Saturday, 6th June, 1863.

SAMUEL Brown, Vice-President, in the Chair.

Mr. John Hill Williams, one of the Honorary Secretaries, read the minutes of the preceding ordinary meeting, and the following Reports:-

REPORT OF THE COUNCIL.

It is gratifying to the Council to be enabled to state that the affairs of the Institute, both as regards its finances and the number of its members, are in a very satisfactory position. The income of the year is £423. 13s. 10d., and the outgoing £374. 4s.

The balance in hand on the 31st March was £300. 10s. 5d.

The number of members on the register is 184; of whom 51 are fellows,

official associates, and 106 associates. The increase in the 12 months is 17. For more particular information on these heads, the Council beg leave to refer to the Report from Mr. Haddon, the Assistant Secretary, addressed to the President and appended hereto. In it will be found very ample details in reference to them, as also some interesting statistics, exhibiting the results of the annual examinations of candidates for the Institute's certificate of competency.

The papers read during the Session are as follows:—

"On the proper mode of estimating the liabilities of Assurance Companies." By Mr. Tucker.

"On the rate of mortality and marriage amongst Europeans in India."

By Mr. Samuel Brown.

"On the calculation of survivorship annuities by the columnar method." By Mr. James Meikle.

"On interpolation, summation, and the adjustment of numerical tables."
(Part I.) By Mr. Woolhouse.

"On the relation of the Carlisle tables to the Government, the Registrar-General's and other tables of mortality." By Mr. Jardine Henry.

"On some of the methods proposed for the valuation of the liabilities of Life Assurance Companies." By Mr. Sprague.

It will be seen that the questions discussed in these papers are of the highest importance in the affairs to which they relate, and the manner in which the several subjects are treated will, the Council believe, well reward a careful study of these productions.

In consequence of a wish very generally expressed here and in Scotland, that the rate of mortality now and of late years prevailing in the Assurance Offices should be accurately determined, steps have been taken, in concert with the managers and actuaries of the Scottish Companies, with a view to accomplish that desirable end; and after a good deal of consideration, it has been thought best to confine the investigation to the experience of such Companies as have been in operation not less than twenty-five or thirty years, so that the data may be of a more matured character than those upon which existing tables have for the most part been based. The labour involved will of course be very great, and the expense considerable; but the Council have reason to believe that a sufficient number of such Offices as those referred to will, notwithstanding, be willing to extract and contribute their experience for the common advantage.

The Council have now to advert with deep regret to the heavy loss which the Institute has sustained in the recent death of their friend and colleague, Mr. Peter Hardy. Mr. Hardy was one of the founders of the Institute, and one of the main supporters of it; and a very large portion of the success it has attained must be attributed to the assistance it has received from his accurate and extensive professional knowledge, from the ability and intelligence which he brought to bear on all questions coming under discussion, and from the wholesome and genial influence which his high character and kindly disposition exercised at all times. It has been suggested that, as an appropriate expression of respect to his memory, a fund should be raised to establish an annual prize, to be given by the Institute in his name; and the Council earnestly trust that, whether in that form, or in some other which may be deemed more desirable, an arrangement, tending to preserve the memory of one whom they so highly esteemed, may, as soon as practicable, be carried into effect.

MR. HADDON'S REPORT.

MY DEAR SIR,—I have the pleasure to transmit herewith, duly audited, the Abstract of Receipts and Payments of the Institute of Actuaries, for the financial year ended 31st March, 1863, and I avail myself of the opportunity to offer a few observations upon it, for your assistance in the preparation of the Annual Report.

I have also appended to this letter a series of tables, showing the progress of the Institute, in every important particular, since its re-organization in the sessional year 1855-56. The different circumstances of the Institute, prior to that time, render it useless to pursue the inquiry to any earlier period.

Receipts.

As compared with the two preceding years, the receipts of the Institute again exhibit a decided increase. In 1860-61, they amounted to £367.5s.; in 1861-62, they were £414.7s.; and in the year ended on the 31st March last. £426.8s.

last, £426.8s.

The income from subscriptions continues to show a substantial increase over previous years. The total sum received from this source, in each of the last three financial years, has been as follows:—

1860-61	 £350	14	0
1861-62	 379	1	0
		10	0

As regards the three classes of members, there was an increase of four subscriptions from Fellows, and from Associates an increase of nine. There is an apparent decrease in the subscriptions from Official Associates during the past year. This does not arise, however, from any decrease in their numbers, but from the fact that the subscriptions of three Official Associates remained unpaid at the end of the financial year.

The other items of receipt, including £4. 4s. from subscriptions in arrear,

and one examination fee, do not call for any special remark.

The balance at the bankers, at the end of the financial year, amounted to £300. 10s. 5d., against £250. 17s. 7d., at the end of 1861-62, exhibiting an an increase of £50.

Payments.

The general expenses of the Institute, during the past year, were amply covered by the income from subscriptions only—the general expenses amounting to £371.18s., and the subscriptions to £409.10s. This was also the case in the two preceding financial years, but the surplus of subscriptions over expenses has not before been so great, as will be seen from the following figures:—

	Subsci	riptic	ons.	General	Expe	nses.	Su	rplus	3.
1860-61	 £350	14	0	£350	12	0	£0	2	0
1861-62	 379	1	0	373	1	0	6	0	0
1862-63	 409	10	0	371	18	0	37	12	0

The general expenses were a few shillings less than those of the previous year; but as compared with 1860-61, both the subsequent years show a considerable increase of expenditure. As I remarked in my Report of last year, this increase is chiefly owing to an augmentation in the cost of printing the Journal, consequent on the expensive nature of the diagrams which sometimes illustrate it. In 1860-61, the Journal cost £88.; in 1861-62, it had increased to £105.; and in the year just ended to £115.

The payments for salaries, stationery and printing, and lighting, all show an increase as compared with the previous year, but the two latter only to a

very slight extent.

On the other hand, the expenditure on the library, and for postage stamps, ordinary meetings, advertising the examinations, and miscellaneous purposes, have all slightly decreased. There is a special item of £5. for house repairs, shared with the London Library and the Statistical Society. The other payments do not require comment.

Receipts and Expenditure, from 1856 to 1863.

If we turn to the tables appended to this Report, we shall find the present financial position of the Institute, as compared with the last eight years, to be very satisfactory.

As regards receipts, Tables I. and II. show an uninterrupted progress in the income from subscriptions during the past five years. From 1856 to 1858, the subscriptions fluctuated, owing to losses which occurred within that period; but from 1859 to 1863 the figures show a steady annual increase.

It will be observed that it was not until the year 1861, that the ordinary (or general) expenses were brought within the sum received from subscriptions alone. The year 1859 is only an apparent exception to this rule, as the subscriptions of that year include a sum of £98, which was not actually received by the Institute. Table III. shows a tendency in some items of expenditure to increase, which is counterbalanced by a tendency in others to decrease. On the whole, the expenditure of 1862-63 does not exhibit so marked an advance on that of 1855-56 as might reasonably have been expected, considering the enhanced income and resources of the Institute at the present time.

Assets.

The investments of the Institute, at the present time, amount to £211. 1s. 10d. 3 per cent. consols (say £204. 17s. 8d.) and the balance at the bankers (including the balance of petty cash) to £300. 10s. 5d., against £250. 17s. 7d. last year, and £236. the year before. The total available assets, therefore (exclusive of any estimate of the value of the library, the Journals in stock and the furniture), amount to the sum of £505. 8s. 1d.

Table I. shows that both the assets and the cash balance are larger at the present time than in any previous year. In 1857, the balance included the Messenger Legacy, which had then just been received.

Liabilities.

The cash balance of £300. 10s. 5d., now in hand, is amply sufficient to cover all the liabilities of the Institute up to the 31st September next. I subjoin an estimate of the payments which will become due before that day:—

Two quarters' salaries (due at Midsummer and Michaelmas)	£55	0	0
Rent (half year, due Michaelmas)	37	10	0
Journal (3 quarters, January, April, and July) say			
Stationery and sundry printing (half year)			
Miscellaneous (say)	10	0	0
Coals (say)	7	5	0
	€194	4	0

List of Members.

The number of Members on the Register, on 1st April, 1862, was 167. During the year 26 new Members have been elected, viz:—1 Fellow, 3 Official Associates, and 22 Associates. The losses have been—1 death, 5 resignations, and 3 defaulters; making a total of 9, of whom 2 were Fellows and 7 Associates. There remained on the Register, on the 31st March, 1863, 51 Fellows, 27 Official Associates, and 106 Associates; in all 184 Members, or an increase of 17 in the twelve months.

In addition to the above-mentioned accessions, 4 Associates were, under the authority of the Council, transferred to the list of Fellows, thereby causing a corresponding decrease in the number of Associates. Two town Associates were transferred to the country list, and one country Associate was added to the town list. It should be borne in mind that these transfers cause modifications in the numbers of the different classes of Members, but that they do not affect the general total.

On reference to Table IV., it will be found that the number of Members at present on the Register, is larger than at any time during the last eight years,

and that it shews an increase of 34 Members as compared with 31st March, 1856, a date immediately subsequent to the retirement of the Scotch Members.

Notwithstanding some fluctuations, it will be seen that the three classes of members have, on the whole, steadily progressed since the year 1857, the period of greatest depression—the Official Associates have nearly doubled, while the Associates have added 38 to their number. The large increase in the number of Associates in recent years I attribute to the attraction of the examinations, as you will clearly discern by comparing Table IV. with Table VI.

Examinations.

In Table VI. I have summarised the results of the examinations during the last eight years. It appears that for the eight examinations there were, altogether, 121 candidates—of whom 72 came up for the matriculation, 31 for the second year's, and 18 for the third year's examination. The successful candidates were 88 in number—of whom 50 passed the matriculation, 22 the second, and 16 the third year's examination. The number of certificates issued was 16, showing that all the candidates entitled to take out certificates have availed themselves of that privilege. The Table shows a large increase, in the last few years, in the number of candidates who come up for the matriculation examination; and the same may be said of the second year's examination, though not to the same extent. For the third year's examination there has been a marked falling off in the number of candidates. Exclusive of the successful candidates at the last examination, there are now 12 Associates qualified to present themselves for the third, and 16 for the second year's examination, who have not yet done so. Recommending the six Tables appended to this Report to your notice,

I remain, my dear Sir,

Yours very faithfully,

FRED. W. HADDON,

Assistant Secretary.

To CHARLES JELLICOE, Esq.,

President of the Institute of Actuaries.

London, 24th April, 1863.

Table I.—Receipts and Payments, Balance and Assets.

37	Rece	IPTS.	1	Expenditur	E.		
Year ended From Subscriptions. Total Receipts.				Balance carried forward.	Assets.		
	£	£	£	£	£	£	£
1856	328	379	362	l	362	144	144
1857	296	483	310		310	317	317
1858	231	263	290	175	465	115	290
1859	324	347	305	187	492	239	414
1860	336	548	374	18	392	220	412
1861	350	367	350	1	351	236	428
1862	379	414	373	26	399	251	456
1863	409	426	371	7	378	300	505

Table II.—Analysis of Receipts, from 1856 to 1863.

¥		Subscriptio	NS FROM-			Other Receipts		
ended 31st March.	lst March. Fellows Official		Official Associates. Associates. Total Subscriptions.		Examin- ation Fees.	(including Balance brought forward).	Total Receipts.	
	£	£	£	£	£	£	£	
1856	131	41	156	328	37	141	506	
1857	128	44	124	296		331	627	
1858	114	30	87	231	5	344	580	
1859	122	55	147	324	16	197	537	
1860	132	61	143	3 36	5	271	612	
1861	132	64	154	350	5	232	587	
1862	133	73	173	379	10	261	650	
1863	145	70	194	409	5	263	677	
1000	140	1	134	703	J	203	377	

Table III.—Analysis of Payments, from 1856 to 1863.

Year ended Bist March.	Rent and Salaries.	Journal.	Library.	Stationery, Printing, Postages.	Fire and Light.	Ordinary Meetings.	Other Payments.	Total.
	£	£	£	£	£	£	£	£
1856	195	69	9	36	9	16	. 28	362
1857	175	55	7	30	14	14	15	310
1858	175	49	8	22	10	12	189	465
1859	175	63	6	29	7	14	198	492
1860	173	119	8	24	13	14	41	392
1861	174	88	11	33	6	15	24	351
1862	179	105	2	28	20	16	49	399
1863	185	115	2	28	5	14	29	378

Table IV.—Number of Members, from 1856 to 1863.

Session ended in	Fellows.	Official Associates.	Associates.	Total Members.
1856	48	16	86	150
1857	46	15	68	129
1958	45	18	81	144
1859	45	18	94	157
1860	46	20	81	147
1861	46	21	88	155
1862	48	24	95	167
1863	51	27	106	184

Table V.—Accessions and Losses, 1856 to 1863.

		Acces					Losses.					
Session ended in	Fellows.	Official Asso- ciates.	Asso- ciates.	Total.	Fellows.	Official Asso- ciates.	Asso- ciates.	Total.	Net Gain or Loss.			
1856 1857 1858 1859 1860 1861 1862 1863	1 2 1 3 3 3 2 5	3 2 4 3 4 2 4 3	8 6 18 15 14 17 14 25	12 10 23 21 21 22 20 33	4 1 2 1 2 3	9 3 1 1 2 1 1	34 17 4 4 27 10 7	47 21 7 6 31 14 8 16	-35 -11 +16 +15 -10 + 8 +12 +17			

Table VI.—Candidates for the Examinations, 1856 to 1863.

Year.	MATRICULATION EXAMINATION.		SECOND YEAR.		THIRD YEAR.		TOTAL.		No. of
	Can- didates.	No. passed.	Can- didates.	No. passed.	Can- didates.	No. passed.	Can- didates.	No. passed.	Certificates issued.
1855	9	7	2	1	7	7	18	15	7
1856	5		5	5			10	9	•
1857	9	4 6		4	4	3	17	13	1
1858	7	6	4 3	3	2	2	12	11	3
1859	5	3	4	4	2	2	11	9	ĭ
1860	11	9	1		1		13	9	ī
1861	12	9 6	7	3	1	1	20	10	2
1862	14	9	5	2	1	1	20	12	1
1									
Total for 8 years	72	50	31	22	18	16	121 -	88	16

Mr. Haddon's Report was received with much approbation.
On the motion of the Chairman the Report was then adopted.
The meeting then proceeded to elect officers for the ensuing year.
Messrs. Newbatt and Parker were appointed scrutineers, the votes being taken by ballot.

On the result of the ballot being obtained, the following was declared to be the list, viz .:-

President.

CHARLES JELLICOE.

Vice Presidents.

ARTHUR HUTCHESON BAILEY. SAMUEL BROWN.

WILLIAM BARWICK HODGE. THOMAS BOND SPRAGUE.

Treasurer.

John Laurence.

Honorary Secretaries.

JOHN REDDISH.

JOHN HILL WILLIAMS.

The usual votes of thanks were then passed, and duly acknowledged, and the meeting separated.

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120	Institute of Actuaries.	[July, 1863.
Cr.	£ s. d. 371 18 4 2 2 0 2 14 10 2376 15 2 300 10 5	£677 5 7
Abstract of Receipts and Payments for the Year ended 31st March, 1863.	1862-63. E. S. d. By Rent	Examined and approved:— James Terry, John Coles, William King,
d Payments for	£ s. d. 250 17 7 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0	£677 5 7 £300 10 5 33, 204 17 8 300 10 5 304 11 11 £810 0 0
Br. Abstract of Receipts and	RECEIPTS. To balance brought forward	March 31, 1863. To Balance brought down Note.—The Assets of the Institute, on the 31st March, 1863, consisted of £211. 1s. 10d. 3 per cent. Consols, which cost Cash. Books in Library, say Total. 12, Sr. James's Square, London, 1st April, 1863.